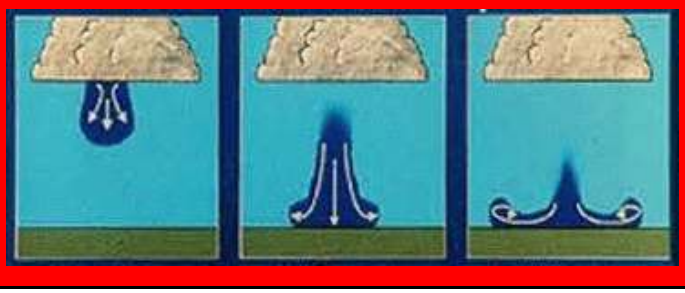
The Microburst



The Official Newsletter of the Tri-State SKYWARN Program
... Published by the National Weather Service, Upton NY ...

Volume 3, Number 2
December 2003

Winter 2003-04 Edition

An Early Season Snowstorm to Get the Winter Started...

With the change of the calendar to December, one expects the weather to turn colder, and eventually for the snow to fly. For the second year in a row, the first week of December brought a snowstorm to the Tri-State Region. This storm was actually a two-part system, with the first system arriving around midday Friday the 5th.

The first system generally dropped between 4 and 8 inches of snow near the coast. Inland areas got off easy on the first wave with only a couple of inches.

The second wave got going Saturday morning, dropping another 6 to 12 inches or so Saturday into Saturday night. The NWS received nearly 500 spotter email reports, and received many, many other reports via phone and SKYWARN Nets. Thanks to everyone for the reports...they were very much appreciated.

Some questions arose regarding some snowfall measurements from the event. As a result of this, we have included a piece on "the art of snowfall measurement" in this issue for your information and future use in the Feature Section. Since winter is just getting started, there will probably be plenty of opportunities to use the information in that article.

SKYWARN Recognition Day...well, almost...

SKYWARN Recognition Day 2003 was one of many area events significantly impacted by the snowstorm. WX2OKX was all set to run for the entire 24 hours for the first time in 3 years. Walter KA2RGI and Bob KC2HMD came in during the first wave of snow Friday to set up. However, that was the last time we saw them over the weekend (or any other operators for that matter) as the snows kept our operators at home.

All was not lost as 4 local nets did operate as scheduled, so we will at least have a small number of contacts to report. I (Scott KC2JCB) did partake in 2 nets Friday night, and 2 more Saturday evening. 40 contacts were made during the nets, with the obvious snowfall measurements being the main observations passed along.

I would like to thank the following people and amateur radio clubs for their help in putting together these nets and for all of their help throughout the year for SKYWARN Operations...

Neil KC2KY, Emil KD1F and the Radio Central Amateur Radio Club for use of the W2RC/R 145.150 repeater in Port Jefferson NY.

Jeff KB4JKL, Andy WB2FXN and the Suffolk Police Amateur Radio Club for the use of the K2SPD/R repeater in Farmingville NY, and for setting up the link to the LI_NY Conference Server on Echolink.

Joe N2LF, John K2CIB, Alan N2CYC and the Rockland Repeater Association for setting up the Saturday evening net on the K2CIB/R repeater in Orangetown NY.

Glenn N1HAW, Jim N1GPB, Brian N1LFE and the Shore Point Amateur Radio Club for use of the N1LFE/R repeater in West Haven CT, and for setting up the Echolink connection to the New England Conference Server.

The last 3 repeaters (K2SPD/R, K2CIB/R, N1LFE/R) are our primary SKYWARN Amateur Radio repeaters in their respective counties. Our thanks to the clubs, coordinators and the repeater trustees for all that they do to support SKYWARN. And, we are looking into ways to integrate the W2RC/R repeater into our operations as well.

New Skywarn Coordinators

We're pleased to announce the appointment of 2 more deputy coordinators for the SKYWARN program. Alan Goodman N2CYC is our new Rockland County NY Deputy Coordinator. Jim Williams N1GPB is our new Deputy Coordinator for New Haven and Middlesex Counties in Connecticut. Welcome to both of you.

There are still a few more deputy coordinator vacancies to fill. We hope to have most (if not all) of these filled by the Annual Coordinators meeting, which now looks to be held in late March or early April.

NWS Upton "On The Road"

The National Weather Service (NWS) conducts outreach visits to a variety of groups. Two of the upcoming events that the NWS will be at include...

The 94th Annual New York National Boat Show...Saturday December 27th through Sunday January 4th, at the Jacob Javitts Convention Center in Manhattan. We'll be in Hall D, Booth number 1026, complete with all kinds of general and marine weather information. Check us out...

Ham Radio University 2004...Sunday January 18, at the East Woods School in Oyster Bay, NY. The NWS will have an information table in the exhibitors area, complete with the usual assortment of weather and SKYWARN information.

HRU 2004 is a day to learn about everything from satellite communications, low power operating using radios as small as a tuna tin, and the latest in emergency communications. There will also be a VE session for those who would like to take an FCC exam to get their ham license, or to upgrade their license. There will also be a Special Event Station set up and operational on HF.

There will be special forums geared to the non-ham as well as the experienced ham radio operator. The focus will be "hands on" with many demonstrations.

I (Scott KC2JCB) will be one of the forum speakers during the afternoon, with a talk on NWS Weather Information and its use in Event and Emergency Planning and Response. Hope to see some of you there.

Ham Radio Corner

A question that has come up recently was about the area SKYWARN Nets and how to access them. Here's how the local nets are set up right now...

Currently, our SKYWARN Nets are under the direction of the Coordinator (or Deputy) Coordinator for a given County. The frequencies, offsets and PLs are listed on the NWS Upton SKYWARN web site (address is listed at the end of the newsletter). It is the responsibility of the Coordinator, Deputy Coordinator, or other designated Net Control Station to bring up a net, obtain reports and pass the information on to the NWS. In most cases, this occurs when the NWS activates SKYWARN (either via a Watch or Warning issuance), or via prior coordination between NWS and the Coordinators.

However, those are not the only SKYWARN nets that operate. Some amateur radio clubs have established their own SKYWARN nets, and pass any information along to the NWS or to the County nets. We at the NWS appreciate any SKYWARN reports that we receive, whether they come via the County nets, local nets, or other sources. As we upgrade our amateur radio station at the NWS (station WX2OKX), we anticipate being able to run more "wide-area" nets during severe weather events. Those upgrades are scheduled to begin in the spring.

We also encourage our local coordinator teams to conduct regular SKYWARN Training or Weather Nets. There are currently at least 3 that meet weekly. The Bergen-Passaic SKYWARN Training Net is held on Monday nights at 10 pm on the W2PQG/R repeater (146.700 mHZ, PL 141.3, -600 kHz offset). The New Haven-Middlesex Weather Net is held on Thursday nights at 730 pm, on the N1LFE/R repeater (147.505 mHz, PL 77.0, -1 mHz offset). The New London County Weather net meets each Wednesday at 800 pm. On the first Wednesday of the month, they meet on the W1NLC/R repeater (146.970, PL 156.7, -600 kHz offset). For all other Wednesdays, the net meets on the W1AAA/R repeater (147.060, 156.7 PL, +600 kHz offset).

There is also talk of a monthly net starting up in Rockland County on the K2CIB/R repeater (147.165 mHz, PL 114.8, +600 kHz offset).

For the hams out there, why not check into one of these, even if you are outside of the counties listed? It's a good way to keep up with some of the SKYWARN and weather-related issues of the day,

and to be better prepared for those severe and winter weather events when they do arise.

December 5th Was a Strange Day...

Mindful of the National Weather Service's prediction for the weekend of December 5th-7th, I nevertheless took out my lawn mower and let the gas burn through it while I ran it over the lawn and I raked up the last leaves in my yard. Both activities seemed like typical summer and fall exercises, except for the fact that it was 25 degrees out.

Around noontime, I put all of my gardening utensils away and pulled out two snow shovels. I also dragged out a 40 pound bag of de-icer and taped my snow- measuring yardstick to a fence post. At around 1:00 pm, it started snowing lightly. I was too busy (or lazy) to place my snowboards into position.

By 6:00 pm, the roads were very slippery and I responded to an ambulance call for an automobile into a telephone pole. The car struck the pole sideways, at the passenger door, and the driver was trapped in the vehicle. The Rescue Squad and Fire Department also responded and extricated the driver from her vehicle. That would be the only automobile accident with injuries all weekend.

At 9:00 PM, we convened a Bergen-Passaic SKYWARN Spotter Net and took snow accumulation reports from a dozen amateur radio operators who are also trained SKYWARN spotters. The general amount was around 4", with the snow falling at a steady but light rate. The readings were sent to the National Weather Service, in Upton, NY.

At 10:00 pm, I called in the "ground truth observations" to WCBS, WNBC, WABC and Fox-5. At 11:30 pm, I was dozing off in my chair when I heard one of the TV meteorologists say, "Thanks to Mike Adams, Ramsey OEM Coordinator, for sending in the following snowfall accumulations...much appreciated!" That was pretty nice, I thought, but when I went to get up, I wondered why every muscle in my body ached.

I had not even started the frustrating task of shoveling snow during a blizzard. I hadn't had to push anyone's car out of a drift. I didn't even have to lift the patient out of her car, onto the stretcher at the automobile accident. Oh, that's right, I remembered, I had cut my lawn and raked my leaves that morning. It was a very, very strange day.

Contributed by Mike Adams WA2MWT, Bergen County NJ SKYWARN Coordinator and OEM Coordinator for the Borough of Ramsey NJ

FEATURE SECTION - WINTER WEATHER

Inside the Winter Weather Feature Section...

Seasonal Outlook ... January-March 2004

(This long range prognosis below is courtesy of the Climate Prediction Center in Camp Springs, MD.)

The Northeastern United States can expect equal chances of above-, below- or near-normal temperatures and precipitation during the three-month period of January through March 2004. However, within the three-month

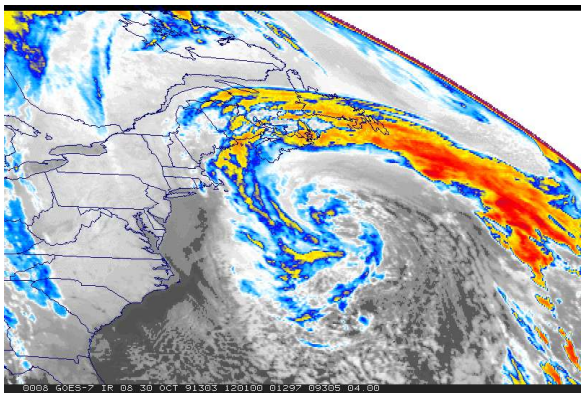
period, variable and changing jet stream patterns are likely to continue. This will bring periods of storminess and swings of temperature extremes, just like what we've seen in the Northeast thus far in December. So, keep those snow shovels, snow blowers and ice melt handy...just in case. Here are the normals for each of the three-months for New York City.

New York City (Central Park) - Normals and Extremes					
Month	Temperature	Precipitation	Snowfall	Coldest	Snowiest
January	32.1°	4.13"	8.1"	21.7° / 1918	27.4 (1925)
February	34.6°	3.15"	7.6"	19.9° / 1934	27.9 (1934)
March	42.5°	4.37"	3.2"	30.0° / 1888	30.5 (1896)

A Winter Storm Retrospective...

Many times during the winter, and usually just before a storm hits, there will be references to past storms. This section takes a look back a just a few of the "big ones" to effect the Northeast in the past decade or so.

▸ "The Perfect Storm" (October 1991)

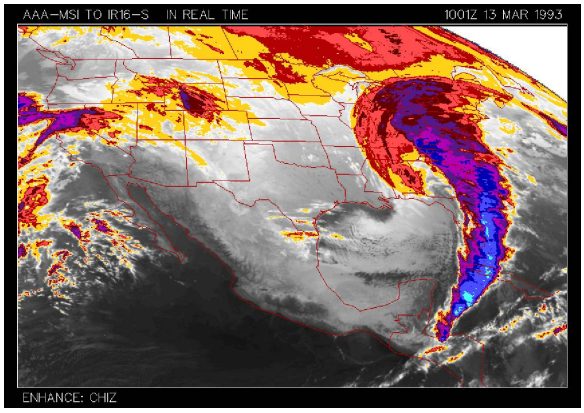


An extratropical cyclone formed along a cold front off of the Atlantic coast on 28 October, and rapidly deepened. Hurricane Grace, a fairly large late season Atlantic tropical system, gradually weakened in response to the large cyclone's circulation, but the moisture from Grace was enveloped into the other cyclone during the next 36 hours. 10 to 15 foot swells were already affecting the Atlantic coast from the Carolinas southward.

The Halloween Storm continued to deepen while drifting to the southeast, then southwest, and eventually south. By the 31st, the low was located off of the Delmarva coast and was weakening. But, by that time, the damage was being done. The peak intensity of the storm was on the 30th, with maximum sustained winds of 60 knots (69 mph) and a central pressure of 972 mb. The highest reported seas were as high as 39 feet, but much higher seas are likely to have occurred.

Coastal flooding was the biggest hazard from this storm along the coast, despite some southern New England land-based stations such as Chatham MA reporting wind gusts to 78 mph. Boston reported tides over 14 feet above mean low level water (MLLW), or about 1 foot below level seen with the "Blizzard of '78." Coastal flooding, beach erosion and treacherous surf conditions extended all up and down the Atlantic coast from Canada to Florida to Puerto Rico.

▸ "The Storm of the Century" (March 1993)



Storm of the Century. Superstorm of 1993. The "Big One."

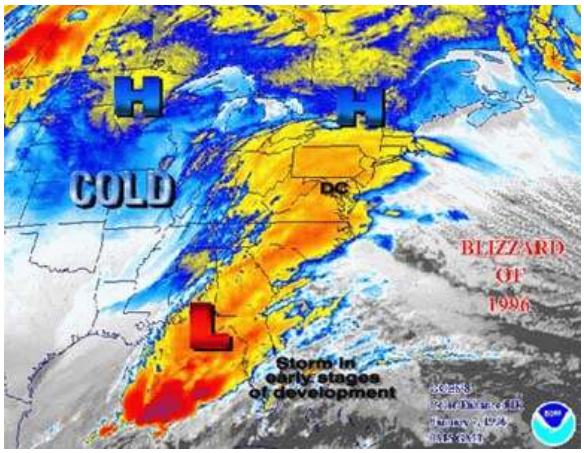
All of these names were used to describe the snowstorm that direct impacts on ***HALF*** of the continental United States.

This well-forecast storm was talked about days in advance. It produced widespread severe weather and coastal flooding along the Gulf Coast. An extensive area of heavy snow and blizzard conditions extended from the southern Appalachians to New York and New England. Snowfall amounts in the Tri-State region

ranged from 1 to 2 feet. Snowfall amounts in the Appalachians were generally 2 to 3 feet, with 4 to 5 foot reports in the Great Smoky Mountains of Tennessee.

This storm took a slightly "less traditional" track compared to what might be considered to be the track of typical "Nor'easters" that stay just offshore. This storm actually remained 50 to 100 miles inland for most of its' trek up the Eastern Seaboard. But it was the size and scope of the storm that will be remembered for years to come.

The "Blizzard of '96" (January 1996)

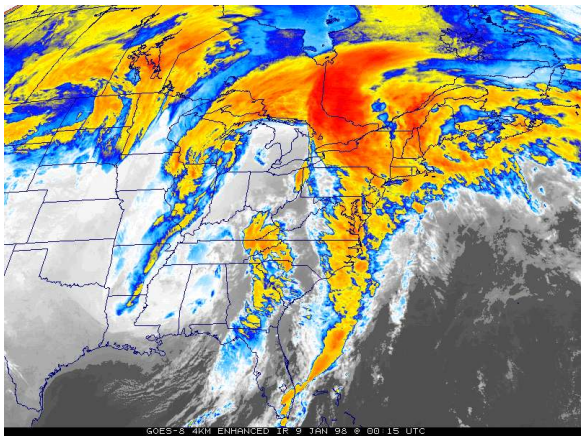


Another well forecast storm to effect the Tri-State Region and the Northeastern U.S. arrived on Sunday the 7th and dumped 18 to 30 inches of snow in about 24 hours. These amounts were common throughout the "Megalopolis" from Washington D.C. to Boston. Amounts of up to 48 inches were reported in the mountains of West Virginia and western Virginia.

All of the classic signatures of a blizzard were there...heavy snow, strong winds, very cold temperatures and wind chill values.

The effects of this storm were felt for days to come in the region, as the region gradually dug out from the storm.

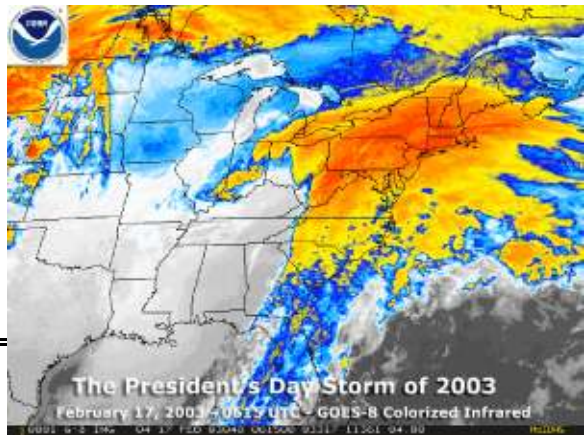
The Ice Storm and Floods of January 1998



This devastating storm did not have a significant impact on the Tri-State Region, but it does show other types of damage possible from winter storms. During the period of the heaviest precipitation, a frontal system remaining nearly stationary across northern New York and New England. 2 to 4 inches of rain fell across an area from western New York into the Tug Hill Plateau and Adirondacks, with local 5 to 6 inch totals. The rainfall accelerated melting of the existing snowpack from the Tug Hill Plateau to northern Vermont. Significant flooding was reported in western and northern New York, with more in Vermont.

The main story, of course, was the devastating ice storm to the north of the front. Significant icing occurred across northern New York, Vermont, New Hampshire, and Maine, and southern Quebec province of Canada. Ice accumulations of over 3 inches were reported in some areas. In Quebec, ice accumulation caused damage over 1000 power transmission towers and 30,000 utility poles.

The "President's Day Storm" of 2003



25 years earlier, it the was the Blizzard of '78. 5 years later, is was the President's Day Storm of 1983. Big February snowstorms are not unusual...this was no exception.

The bulk of the snow in the Tri-State Region from this storm fell on Monday the 17th. This was another "typical" Nor'easter that redeveloped off of the mid-Atlantic coast, moved along the coast and affected the Megalopolis from Washington D.C. to Boston. 1 to 2 feet of snow was common from Pennsylvania through much of central and southern New England. Central Park received nearly 20 inches of snow from this storm, Boston 27.5 inches!

Storm information courtesy of the National Climatic Data Center (Asheville NC), NWS Office of Climate, Water and Weather Services (Silver Spring MD), NWS Burlington VT, Northeast River Forecast Center (Taunton MA).

Snow Measuring Might Involve More Than You Think...

Imagine this scenario... The National Weather Service has just issued a Winter Storm Watch, and as a SKYWARN spotter, you start making preparations. This next storm appears to be a "no-brainer" snow event, and all interests look toward the potential for a significant snowstorm. The NWS has interrogated all of the available guidance and put the most effort into providing the public and emergency management community their very best forecast.

When all is said and done, and the storm has deposited its white download, the amount of snow for the event is largely up to the NWS cooperative network and severe weather spotters. So, the accuracy of the measurements is of utmost importance. Let's take a brief look at some very important fundamentals when it comes to snowfall measuring.

The total snowfall for any particular snow event is NOT the depth of the snow when the storm has wound down. It IS the total summation of snowfall measurements in increments throughout the storm. For example, a snowstorm may start dropping snow at noon. By 6 pm, the snow depth is 3 inches. By 7 pm, the wind kicks up from the north and blows and drifts the snow downwind to the south in your yard. Those 3 inches accumulated by 6 pm are now deposited randomly across your observation area. Other factors that could complicate snow measuring are melting and compression.

The best way to minimize errors is to observe snow depth in increments. The increments of time can vary from observer to observer and from event to event. One example of an acceptable time increment is 6 hourly. Let's say that the snow starts at noon. At 6pm, an AVERAGE snow depth is observed. An average is obtained by taking several readings around your observation area and come up with a representative average. When the storm winds down, a total for the storm is obtained after taking the total of ALL the readings.

The preferred snow observation interval is every **6 hours.**

SNOW BOARDS:

The most recommended way to measure snow is the snowboard. The board is usually 3 feet by 3 feet, and is about one-half inch thick. The board should be painted white to reflect solar radiation. The board's placement is key with this type of technique. Place the board in a location where there is limited blowing and drifting. During a snow event, measurements are made on the board, written down and the board is swept clean. After the event, the total of ALL readings is used for the event total.

For more on snowfall measurements, please refer to this web site at NWS Headquarters...
http://www.nws.noaa.gov/om/coop/Publications/snowguid.htm

Contributed by Tim Morrin, Hydrometeorological Technician/Cooperative Program Manager, NWS Upton NY

Winter Weather Preparedness

Here is some preparedness information to help you better deal with whatever "Old Man Winter" decided to dish out this winter...

BEFORE THE STORM:

Have the following available at home, just in case of a loss of power, heat, or telephone...

- Flashlights (and extra batteries).
- Battery-powered NOAA Weather Radio.
- Extra food, water, medicine and baby items. (DON'T FORGET ABOUT YOUR PETS!)
- First-aid supplies.
- Sufficient heating fuel.
- Emergency heat source.
- Fire extinguisher.

For your vehicle...make sure you have the following...

- A full tank of gas.
- Shovel, windshield scraper, sand or cat litter for traction, rope.
- First-aid kit, knife.
- Extra clothing, blankets.
- Food, container for water, waterproof matches.

WHEN CAUGHT IN A WINTER STORM:

If you're caught outside...

- Find shelter. (Try to stay dry and cover all exposed body parts.
- If no shelter is available...build a wind break for protection from the wind and build a fire for heat and to attract attention.
- Melt snow for drinking water. (Eating snow will lower your body temperature.)

In your vehicle...

- Stay inside. You can become disoriented very quickly in wind-driven snow and cold.
- Run the engine about 10 minutes per hour for heat, and keep the dome light on at night while running the engine.
- Keep a window open for fresh air and to avoid carbon monoxide poisoning.
- Make sure the exhaust pipe is not blocked.
- Tie a colored (red if available) cloth to a door or antenna.
- Raise the hood after the snow stops to indicate that you need help.
- Keep your blood circulating and keep warm by moving around from time to time (arms, legs, fingers, toes).

At home...

- Stay inside. Be sure to use fire safeguards and proper ventilation when using alternate heat sources (i.e. fireplace, wood stove, space heater).
- Close off unneeded rooms, cover windows at night.
- Eat and drink. Food provides the body with energy for producing it's own heat. Avoid dehydration.
- Wear layers of loose-fitting, lightweight clothing. Remove layers to prevent overheating, perspiration and subsequent chill.

AVOID OVEREXERTION !!!

*Most of this winter weather information courtesy of **"Winter Storms: The Deceptive Killers,"** a Preparedness Guide from the National Weather Service, in cooperation with the National Oceanic and Atmospheric Administration, and the American Red Cross.*

Winter Spotter Reporting Criteria...

HIGHEST PRIORITY Items (important whether or not SKYWARN has been activated):

- ! Any deaths or injuries associated with hazardous weather.
- ! Damaging wind gusts of 58 mph or higher, whether or not accompanied by a thunderstorm.
  - " If you are unsure of the speed, report any downed trees or power lines or structural damage to homes (e.g. slates off roof, antenna downed).
- ! Flooding of streams and rivers onto roadways, homes or businesses.
- ! Urban flooding significant enough to make roadways or underpasses impassable.
- ! Two inches of rain within a twelve hour period.
- ! One inch of rain in an hour in urban areas.

- Heavy accumulation of ice which downs trees or power lines.
- Ice jams on rivers or streams which produce flooding.

Other Priority Items:

- Estimated wind gusts from 40-57 mph.
- Freezing rain or sleet occurring when none is forecast.
- A thunderstorm in progress when none is forecast.
- Presence of rain when only frozen precipitation is forecast (sleet, snow, and/or freezing rain).
- Rain or snowmelt which causes minor roadway flooding or flooding of streams.
- Blowing or drifting snow which closes roadways.

Snowfall Reporting Criteria: Please use the following criteria to report snowfall:

- When snow accumulates 1 inch (especially if none is forecast).
- When snow accumulates 3 inches (the NWS issues an advisory for 4 inches).
- When snow accumulates 5 inches (the NWS issues a warning for 6 inches).
- When snow accumulates 1 inch per hour.
- Storm Total Snowfall.

From the MIC's Desk...

I just wanted to add a few words and let you know just how much you all are appreciated. You may not know this but NWS Upton has done a great job in our verification numbers in both severe weather and winter weather over the past two years. This is not something that we just look at ourselves. This is something that is shown to Congress each year and is one of the determining factors for our budget from year to year.

We owe much of our success in our warning program to you! You folks have given us the information that tells us that our warnings are needed and that we are on the right track. Without you letting us know that severe or winter weather is really happening out there in real time, we would have to wait for the 10 or 11 o'clock news, and what good would that do us?

Please realize that what you do as a SKYWARN Spotter also affects everyone in this part of the country. By calling in or emailing in a severe weather report, you are helping out everyone in your community as well as all communities downstream from you who will be affected by your storm. The details you give us on your storm will also enable us to determine what may happen with other storms that develop that day in our region.

You should be proud of the fact that you are a SKYWARN Spotter because it is just one more way of doing you civic duty.

To all of you and yours have the Happiest of Holidays and Best of Luck in the New Year!

Mike Wyllie, Meteorologist-in-Charge, NWS Upton NY

"5 Questions ..."

We've decided to keep this issue's quiz a bit shorter than usual. However, you will have to think a little harder, or at least search around a bit more on the Internet than usual. Good luck... You can email Scott KC2JCB for "your grade..."

1. Define the term "blizzard." (Hint: There's more than 1 part to this answer.)
2. What is Central Park's official "normal" seasonal snowfall?
3. How much ice accretion needs to be forecast for the NWS to issue a Winter Storm Warning for Freezing Rain in our area?
4. Name 3 other non-snow hazards that "Nor'easters" can bring to our area.
5. What are the ingredients needed to produce "ocean effect" snow? (Hint: They're similar to those for Lake Effect Snow.)

Parting Shots

First, let me echo Mike's sentiments...thanks to each and every one of you for ALL of your reports during the past year (and before that too). You make my job as a forecaster much easier when you send us your reports, whether it's during a snowstorm, severe weather outbreak or heavy rain/flood event.

I would also like to again thank all of our County Coordinators, their deputies, the repeater trustees, amateur radio club leaders and local ARRL leadership for their support of the SKYWARN program. Your efforts do not go unnoticed.

From the ham radio side of SKYWARN, we are awaiting warmer weather in the spring in order to perform a major upgrade to our radio facilities. A new (TALLER!) antenna is on order, and hopefully will be in place and operational before the spring severe weather season begins. The taller tower should allow us to better communicate with the western parts of our warning area (i.e. anywhere west of the Hudson River and the Meadowbrook Parkway in Nassau County.

Spring training is only a few months away, and we do hope to conduct more classes than in the past couple of years. This will include Basic and Advanced Classes. Our Coordinator teams will be contacted soon after the new year begins in order to have the spring schedule in place by early March.

On behalf of the National Weather Service, I would like to wish everyone a happy, safe and healthy holiday season to all!

73 de Scott KC2JCB

To Contact Us...

Via "Snail" Mail...

National Weather Service Attn: SKYWARN
175 Brookhaven Ave., Building NWS-1
Upton, NY 11973

Via Phone (non-spotter reports)...

(631) 924-0517
Extension 412...Skywarn Information and Class Registration Voice Mail Box

Via E-Mail...

All Spotter Information Updates
okx.skywarn@noaa.gov
Or "snail mail" to Scott at above address.

Scott Reynolds KC2JCB
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SKYWARN Program Leader
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Gary Conte gary.conte@noaa.gov
NWS Upton NY
Warning Coordination Meteorologist

Bob Giglio N2JJM bob@gigdot.net
Regional Amateur Radio SKYWARN Coordinator

Submitting Spotter Reports...

Via E-Mail... okx.spotters@noaa.gov

Upton Web Page Reporting Form...
http://www.erh.noaa.gov/okx/report.html

800 Number...
Sorry, we can't put it here. If you are a current spotter and need the number, email or call Scott and he'll send it to you!

Web Links...

NOAA Home Page
http://www.noaa.gov

NWS Homepage
http://www.weather.gov

NWS Brochures Page
http://www.nws.noaa.gov/om/brochures.shtml

NWS Upton NY
http://www.erh.noaa.gov/okx/

NWS Upton NY Winter Weather Page
http://www.erh.noaa.gov/okx/winterweather.html

NWS Upton Skywarn Page
http://www.erh.noaa.gov/okx/skywarn.html

SkywarnPrepared Information
http://www.erh.noaa.gov/okx/Skywarn/prepared.html

SkywarnPrepared Application
http://www.erh.noaa.gov/okx/Skywarn/skywarn-rec-app.pdf

Skywarn Winter Reporting Procedures
http://www.erh.noaa.gov/okx/Skywarn/cold_criteria.html

NWS Snow Measurement Guide
http://www.nws.noaa.gov/om/coop/Publications/snowguid.htm

Picture of the Issue...

This photo is courtesy of the National Weather Service in Buffalo NY.
(Thanks to Tom Niziol, Science and Operations Officer)

This picture is from the epic Lake Effect Snowstorm of 12/24/2001-1/1/2002.
81.6" of snow fell at the Buffalo Airport...127" fell in Montague NY.

(Bonus points for the "5 Questions" if you can find Montague on a map!)

Who says that meteorologists don't have a sense of humor???

"The Microburst" is the official newsletter of the Tri-State SKYWARN Program, and is published up to four times per year by the NWS Office in Upton NY. All editions are published to the Upton web page at http://www.erh.noaa.gov/okx/.